

SPE RESPONSE FOR CERTIFICATE OF CORRECTION

DATE : 10/24/06

Paper No.:

TO SPE OF : ART UNIT 1623

SUBJECT : Request for Certificate of Correction for Appl. No.: 7/967267 Patent No.: 7101993 B1

Please respond to this request for a certificate of correction within 7 days.

Please review the requested changes/corrections as shown in the **COCIN** document(s) in the IFW application image. No new matter should be introduced, nor should the scope or meaning of the claims be changed.

Please complete the response (see below) and forward the completed response to scanning using document code **COCX**.

Virginia Tolbert

Certificates of Correction Branch

703-308-9390 ext. 113

Thank You For Your Assistance

The request for issuing the above-identified correction(s) is hereby:

Note your decision on the appropriate box.

☒ **Approved**

All changes apply.

☐ **Approved in Part**

Specify below which changes **do not** apply.

☐ **Denied**

State the reasons for denial below.

Comments: _____

[Signature]
SPE

1623
Art Unit

**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**

Page 1 of 6

PATENT NO. : 7,101,993
APPLICATION NO.: 07/967,267
ISSUE DATE : 09/05/2006
INVENTOR(S) : Phillip Dan Cook

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

1) Title Page:

Item [63], Related U.S. Application Data, please delete

"Continuation-in-part of application No. 07/918,362, filed on Jul. 23, 1992, now Pat. No. 5,506,351, which is a continuation-in-part of application No. 07/463,358, filed on Jan. 11, 1990, now abandoned, which is a continuation-in-part of application No. 07/566,977, filed on Aug. 13, 1990, now abandoned"

and insert therefore

--Continuation-in-part of application No. 07/918,362, filed on Jul. 23, 1992, now Pat. No. 5,506,351, and application No. PCT/US91/00243, filed on Jan. 11, 1991, which is a continuation-in-part of application No. 07/566,977, filed on Aug. 13, 1990, now abandoned, and application No. 07/463,358, filed on Jan. 11, 1990, now abandoned--;

2) Page 2, OTHER PUBLICATION, "Robins" reference, please delete "2-aminoaldenosine" and insert therefore --2-aminoadenosine--;

3) Column 1, line 8, please insert --and Ser. No. US91/00243 filed on Jan, 11, 1991-- between "5,506,351" and "which";

4) Column 2, line 19, please delete "2-O-alkylated" and insert therefore --2'-O-alkylated--;

5) Column 5, line 22, please delete ".";

6) Column 9, line 5, please delete "NH₂" and insert therefore --NH₂--;

7) Column 9, line 5, please delete "(2NH₂" and insert therefore --(2NH₂--;

MAILING ADDRESS OF SENDER (Please do not use customer number below):

Isis Pharmaceuticals, Inc.
1896 Rutherford Rd.
Carlsbad, CA 92008

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

SEP 5 2006

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 2 of 6

PATENT NO. : 7,101,993
APPLICATION NO.: 07/967,267
ISSUE DATE : 09/05/2006
INVENTOR(S) : Phillip Dan Cook

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

8) Column 9, line 8, please delete "N,N-diisopropylaminochlorophosphine" and insert therefore --N,N-diisopropyl aminochlorophosphine--;

9) Column 11, line 1, please delete "similarly" and insert therefore --Similarly--;

10) Column 13, line 44, please delete " $C_{13}H_{20}N_6O_4 \cdot \frac{1}{2}H_2O$:" and insert therefore -- $C_{13}H_{20}N_6O_4 \cdot \frac{1}{2}H_2O$ --;

11) Column 13, line 47, please delete "B";

12) Column 14, line 6, please delete "O-CH₂)" and insert therefore --O-CH₂)--;

13) Column 14, line 34, please delete " $C_{17}H_{25}N_5O_8 \cdot \frac{1}{2}H_2O$:" and insert therefore -- $C_{17}H_{25}N_5O_8 \cdot \frac{1}{2}H_2O$ --;

14) Column 14, line 48, please delete "CH₂Cl₂/2xdil" and insert therefore --CH₂Cl₂/2x dil--;

15) Column 14, line 57, please delete " $C_{38}H_{42}N_5O_8 \cdot H_2O$:" and insert therefore -- $C_{38}H_{42}N_5O_8 \cdot H_2O$ --;

16) Column 16, line 26, please delete " $C_{40}H_{47}N_5O_8 \cdot \frac{1}{2}H_2O$:" and insert therefore -- $C_{40}H_{47}N_5O_8 \cdot \frac{1}{2}H_2O$ --;

17) Column 17, line 12, please delete "3'-OH5'-OH" and insert therefore --3'-OH 5'-OH--;

18) Column 17, line 30, please delete "C2" and insert therefore --C₂--;

MAILING ADDRESS OF SENDER (Please do not use customer number below):

Isis Pharmaceuticals, Inc.
1896 Rutherford Rd.
Carlsbad, CA 92008

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

SEP 27 2006

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

Page 3 of 6

PATENT NO. : 7,101,993
APPLICATION NO.: 07/967,267
ISSUE DATE : 09/05/2006
INVENTOR(S) : Phillip Dan Cook

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

- 19) Column 18, line 9, please delete "¹ H" and insert therefore --¹H--;
- 20) Column 18, line 20, please delete "D-ribo-furanosyl" and insert therefore --D-ribofuranosyl--;
- 21) Column 19, line 57, please delete "3'-OH)" and insert therefore --3'-OH)--;
- 22) Column 19, line 59, please delete "C₂₁H₂₂N₆O₇·½H₂O: " and insert therefore --C₂₁H₂₂N₆O₇·½H₂O:--;
- 23) Column 20, line 9, please delete "C₂₅H₂₈N₆O₈·½H₂O: " and insert therefore --C₂₅H₂₈N₆O₈·½H₂O:--;
- 24) Column 20, line 15, please delete "phthalimido)propylquanosine" and insert therefore --phthalimido)propylguanosine--;
- 25) Column 20, line 29, please delete "C₄₆H₄₆N₆O₁₀·H₂O: " and insert therefore --C₄₆H₄₆N₆O₁₀·H₂O:--;
- 26) Column 20, line 45, please delete "N2-Dimethylaminomethylidene-5--" and insert therefore --N2-Dimethylaminomethylidene-5'---;
- 27) Column 20, line 53, please delete "1xwith" and insert therefore --1x with--;
- 28) Column 20, line 65, please delete "C₄₅H₄₅N₇O₉·½H₂O: " and insert therefore --C₄₅H₄₅N₇O₉·½H₂O:--;

MAILING ADDRESS OF SENDER (Please do not use customer number below):

Isis Pharmaceuticals, Inc.
1896 Rutherford Rd.
Carlsbad, CA 92008

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

Page 4 of 6

PATENT NO. : 7,101,993
APPLICATION NO.: 07/967,267
ISSUE DATE : 09/05/2006
INVENTOR(S) : Phillip Dan Cook

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

- 29) Column 21, line 60, please delete " $C_{23}H_{26}N_6O_7 \cdot \frac{1}{2}H_2O$:" and insert therefore $-C_{23}H_{26}N_6O_7 \cdot \frac{1}{2}H_2O$ --;
- 30) Column 22, line 3, please delete "2xwith" and insert therefore --2x with--;
- 31) Column 22, line 11, please delete " $C_{27}H_{32}N_6O_8 \cdot \frac{1}{2}H_2O$:" and insert therefore $-C_{27}H_{32}N_6O_8 \cdot \frac{1}{2}H_2O$ --;
- 32) Column 22, line 31, please delete " $C_{48}H_{50}N_6O_{10} \cdot \frac{1}{2}H_2O$:" and insert therefore $-C_{48}H_{50}N_6O_{10} \cdot \frac{1}{2}H_2O$ --;
- 33) Column 22, line 39, please delete "2,6-diamino-9-(\square -D-ribo-furanosyl)" and insert therefore --2,6-diamino-9-(\square -D-ribofuranosyl)--;
- 34) Column 22, line 48, please delete " $C_{22}H_{40}N_6O_5Si_2 \cdot \frac{1}{2}H_2O$:" and insert therefore $-C_{22}H_{40}N_6O_5Si_2 \cdot \frac{1}{2}H_2O$ --;
- 35) Column 23, line 16, please delete " $C_{11}H_{16}N_6O_4 \cdot \frac{1}{2}H_2O$:" and insert therefore $-C_{11}H_{16}N_6O_4 \cdot \frac{1}{2}H_2O$ --;
- 36) Column 23, line 34, please delete " $C_{11}H_{15}N_5O_5 \cdot \frac{1}{2}H_2O$:" and insert therefore $-C_{11}H_{15}N_5O_5 \cdot \frac{1}{2}H_2O$ --;
- 37) Column 23, line 50, please delete " $CH(CH_3)_2$ " and insert therefore $-CH(CH_3)_2$ --;
- 38) Column 24, line 6, please delete "N2-Isobutyryl-5'-dimethoxytrityl-2'-O-methyl-guanosine" and insert therefore --N2-Isobutyryl-5'-dimethoxytrityl-2'-O-methylguanosine--;

MAILING ADDRESS OF SENDER (Please do not use customer number below):

Isis Pharmaceuticals, Inc.
1896 Rutherford Rd.
Carlsbad, CA 92008

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

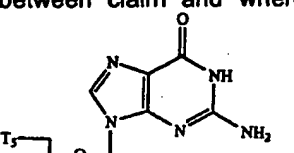
7 2006

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

Page 5 of 6

PATENT NO. : 7,101,993
APPLICATION NO.: 07/967,267
ISSUE DATE : 09/05/2006
INVENTOR(S) : Phillip Dan Cook

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

- 39) Column 24, line 16, please delete "D-ribo-furanosyl) " and insert therefore --D-ribofuranosyl)--;
- 40) Column 25, line 24, please delete "3'-OH5'-OH) " and insert therefore --3'-OH 5'-OH--;
- 41) Column 25, line 39, please delete "CH(CH₃)₂ " and insert therefore --CH(CH₃)₂--;
- 42) Column 25, line 62, please delete "2, 6-diamino-9-[3-O-" and insert therefore --2,6-diamino-9-[3-O--;
- 43) Column 29, Claim 10, please insert --1-- between "claim" and "wherein";
- 44) Column 29, lines 17-27, please delete " 

MAILING ADDRESS OF SENDER (Please do not use customer number below):

Isis Pharmaceuticals, Inc.
1896 Rutherford Rd.
Carlsbad, CA 92008

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

SEP 27 2006

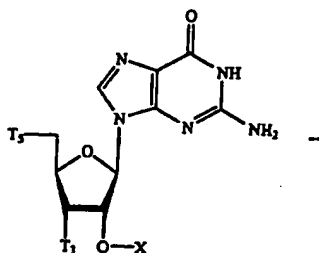
**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**

Page 6 of 6

PATENT NO. : 7,101,993
APPLICATION NO.: 07/967,267
ISSUE DATE : 09/05/2006
INVENTOR(S) : Phillip Dan Cook

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

45) Column 29, claim 14, please insert --



between "structure: " and "wherein".

MAILING ADDRESS OF SENDER (Please do not use customer number below):

Isis Pharmaceuticals, Inc.
1896 Rutherford Rd.
Carlsbad, CA 92008

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.